

of urine when the patient was on a diet poor in salt and nitrogen, with polyuria when the usual mixed diet was given. Otherwise there was no diminution in the ability of the kidneys to secrete nitrogen, sodium chloride and water, but for substances foreign to the body (milk-sugar, potassium iodide and phenolsulphonaphthalein) there was a moderate delay in excretion. The finding of traces of albumin in the urine without morphological elements was constant. There was a moderate increase in blood-pressure amounting to 235 to 240 cm. water (v. Recklinghausen). The study of the blood in these cases revealed normal concentration, osmotic pressure, and rest nitrogen.

SURGERY

UNDER THE CHARGE OF

J. WILLIAM WHITE, M.D.,

FORMERLY JOHN RHEA BARTON PROFESSOR OF SURGERY IN THE UNIVERSITY OF PENNSYLVANIA AND SURGEON TO THE UNIVERSITY HOSPITAL,

AND

T. TURNER THOMAS, M.D.,

ASSOCIATE PROFESSOR OF APPLIED ANATOMY AND ASSOCIATE IN SURGERY IN THE UNIVERSITY OF PENNSYLVANIA; SURGEON TO THE PHILADELPHIA GENERAL HOSPITAL AND ASSISTANT SURGEON TO THE UNIVERSITY HOSPITAL.

Complete Fracture of the Lower Third of the Radius in Childhood, with Green-stick Fracture of the Ulna.—SKILLERN (*Annals Surgery*, 1915, lxi, 209) says that there is a fracture of the lower third of the radius and ulna peculiar to childhood, which constitutes about 13 per cent. of fracture of the forearm. This fracture commonly occurs before the age of puberty, is most frequently encountered during the summer months, and is caused usually by the effects of gravity plus momentum. It is characterized by complete fracture of the radius with dorsal and lateral displacement of the lower fragment and by incomplete green-stick fracture of the inner half of the ulna, usually, at a higher level, the outer half remaining intact and maintaining the deformity of the ulna, which is a bowing of the lower fragment toward the radial side and which in turn, maintains the displacement of the distal fragment of the radius. In reducing the displacement the aim must be to convert the incomplete green-stick into a complete fracture by forcibly rupturing the still intact outer fibers, thereby enabling restoration of alignment of the distal fragment of the ulna with that of the axis of the bone, the distal fragment of the radius coincidentally shifting itself automatically into position. The criterion of reduction is the restoration of the normal alignment of the inner border of the ulna. Fracture of the lower third of both bones and of the radius alone comprise 70 per cent. of fractures of the forearm in childhood. The site of the fracture and its variety may often be predicted by a knowledge of the history and mechanism of the fall. Injuries to

epiphyses, whether strain, sprain, or disjunction should be recognized and treated as fractures because of their importance in the growth of the bones and because epiphyseal injuries often predetermine infections, typically tuberculous. Diagnosis may be established clinically by the mechanism and "wincing" tenderness. If deformity exist it is unjustifiable to elicit further signs of fracture. Roentgenograms are of corroborative value, but by no means the final arbiters. Their chief value is in showing the degree of deformity and its presence after reduction. Owing to the delicacy of the radius and ulna in childhood fracture is the rule, while contusion and sprain are the exceptions. Treatment is begun by the administration of an anesthetic if deformity exist. Otherwise a carefully prepared and padded splint (or splints) is applied firmly and without undue pressure. Roentgen-ray control of reduction is important. Massage and passive motion are adapted to the individual case. The splints must be removed as soon as there is firm union. Operation is indicated only when conservative treatment is admittedly a failure. It will seldom be necessary. The inlay method of Albee should be used instead of an array of metal fixtures.

Ureteral Calculi; Special Means of Diagnosis and Newer Methods of Intravesical Treatment.—GERAGHTY and HINMAN (*Surg., Gynec. and Obst.*, 1915, xx, 515) base their observations on 67 cases from the urological clinic of the Johns Hopkins Hospital. They say that the symptoms of ureteral calculus are not diagnostic and are insufficient to definitely determine either its presence or position except in rare instances. While radiography is the simplest and probably the most valuable single diagnostic method for the detection of ureteral calculi, even in the most expert hands, a surprisingly large percentage (22.4 per cent.) may be undetected by it. This large percentage of failures demands the employment of supplementary methods before excluding stone with any degree of positiveness. By means of collargol ureterograms a calculus occasionally will be shown which the simple Roentgen-ray failed to reveal. The employment of the wax-tipped catheter is by far the most accurate method for the detection of ureteral calculi, and this method should be in more general use. In 6 out of 30 cases of ureteral calculi (20 per cent.) seen in the last two years, it has located a stone where repeated roentgenographs were uniformly negative. Owing to the great frequency of extra-ureteral shadows in the region of the pelvic portion of the ureter, diagnosis of ureteral stones in this region cannot be accepted without confirmatory information. A considerable number of stones which enter the ureter pass spontaneously, and the discovery of a small calculus is not always an indication for immediate operative interference. Unless the stone is blocking completely or producing repeated and violent colic, simple and manipulative methods should first be employed. For calculi beyond the juxtavesical portion, displacement with the ureteral catheter, injection of oil or the securing of relaxation of the ureteral wall by using the thermocatheter may, in certain cases, result in the expulsion of the stone. When the stone is in the vesical portion of the ureter, cystoscopic procedures should usually be successful. A study of these cases, as well as different series reported in the literature, shows that a considerable portion (14.3 per cent., Geraghty and Hinman; 17 per cent. of